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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,319	08/29/2001	Nobuo Sasaki	SCEI 15.928A	9745

26304 7590 01/05/2005	EXAMINER
KATTEN MUCHIN ZAVIS ROSENMAN 575 MADISON AVENUE NEW YORK, NY 10022-2585	CUNNINGHAM, GREGORY F

ART UNIT	PAPER NUMBER
2676	

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/942,319	SASAKI, NOBUO
		Examiner	Art Unit
		Greg Cunningham	2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-11,13-20,22-31,33-35,37-44,46-55,57-59,61-68 and 70-73* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,11,13,14,20,22-25,35,37,38,44,46-49,59,61,62,68 and 70-73* is/are rejected.

7)☒ Claim(s) *2-7,9,10,15-19,26-31,33,34,39-43,50-55,57,58 and 63-67* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 August 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some *   c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communications of election filed 01/05/2004.

2.   The disposition of the claims is as follows: claims 1-7, 9-11, 13-20, 22-31, 33-35, 37-44,

46-55, 57-59, 61-68, 70-73 are pending in the application. Claims 1, 25 and 49 are independent

claims. Claims 8, 12, 21, 32, 36, 45, 56, 60, 69 and 74-133 have been cancelled.

Drawings

3.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show every

feature of the invention specified in the claims. Therefore, the "interpolation vectors",

"coordinates of vertices", "interpolated points", "graphic form", "sub-unit graphic forms", and

"interpolation vectors that are normal-direction normal vectors of the shape to be realized" must

be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to

the Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement

Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

drawing figures. If the changes are not accepted by the examiner, the applicant will be notified

and informed of any required corrective action in the next Office action. The objection to the

drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1, 11, 13, 14, 20, 25, 35, 37, 38, 44, 49, 59, 61, 62 and 68 are rejected under 35

U.S.C. 103(a) as being unpatentable over Zhou et al., (US Patent Number 5,600,772), hereafter

Zhou, and further in view of Kunieda, Takayuki et al. (JP 05175842 A), hereinafter Kunieda.

A.   Zhou discloses claim 25, "An image processing method for an image processing device

which by processing an image defined by a combination of unit graphic forms, splits said unit

graphic forms into multiple sub-unit graphic forms, the image processing method comprising: an

interpolated line computation step of determining an interpolated line which is a line that

interpolates a space between two vertices from an interpolation vector used for determining a

line that interpolates a space between a given vertex and another vertex of vertices of said unit

graphic forms and from coordinates of said vertices; and an interpolated point computation step

of determining, as the vertices of said sub-unit graphic forms, interpolated points which are

points on said interpolated line" in [col. 5, lns. 3-65, wherein cubic Bezier curve corresponds to

"interpolated line" with applicable correspondence between applicant's Fig. 6 and Zhou's Fig. 3:

Zhou's Fig. 3	corresponds to	Applicant's Fig. 6
P_0		P_1
P_3		P_2
P_1		Q_1
P_2		Q_2
$< P_1P_0P_3$		$< \theta_1$ vertex
$< P_2P_3P_0$		$< \theta_2$ another vertex of vertices

However Zhou does not appear to disclose line or point interpolation, yet line and point

interpolation is obvious in view of the Bezier curve as disclosed by Kunieda in constitution at

[Source voices are sampled by a microphone 1, and the analog voices are amplified by an

amplifier 2, converted to the digital audio waveform data by an A/D converter 3 and

approximated by a third-order Bezier curve approximation part 4. In respect to the data

interpolated by the Bezier curve approximation part 4, an arbitrary sampling pitch is designated

an a pitch designation part 5, and a restorage part 6 restores the digital audio waveform data

based on the Bezier curve. The restored digital audio waveform data are converted to analog

audio waveform data by a D/A converter 7 and reproduced through an amplifier 8 by a speaker

9. Therefore, since the pitch designation part 5 arbitrarily designates the number of pitches, the

restorage part 6 can restore the digital audio waveform data based on the third-order Bezier

curve.]

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply [bit mapped representations of various kinds of characters and other symbols at selectable resolutions and point sizes, from curved representations of their outlines] disclosed by Zhou in combination with [data interpolated by the Bezier curve] disclosed by Kunieda, and motivated to combine the teachings because it would produce interpolated Bezier line (points) as revealed by Zhou and Kunieda.

B.   Per independent claims 1 and 49, these are directed to a devise and medium, respectively, for performing the method of independent claim 25, and therefore are rejected to independent claim 25.

C.   Zhou and Kunieda disclose claim 35, "The image processing method as disclosed in claim 25, wherein said interpolation vectors at the vertices of said unit graphic forms are interpolated line direction vectors which define directions of said interpolated lines at said vertices" supra for claim 25; wherein tangent vectors along control points P and P correspond to interpolated line direction vectors which define directions of said interpolated lines (Bezier curves).

D.   Per dependent claims 11 and 59, these are directed to a devise and medium, respectively, for performing the method of dependent claim 35, and therefore are rejected to dependent claim 35.

E.   Zhou and Kunieda disclose claim 37, "The image processing method as disclosed in claim 35, wherein said interpolation line direction vectors are vectors that express the tangent direction of said interpolated lines at said vertices" supra for claim 35; wherein tangent vectors along control points P and P correspond to "tangent direction".

F.   Per dependent claims 13 and 61, these are directed to a devise and medium, respectively,

for performing the method of dependent claim 37, and therefore are rejected to dependent claim

37.

G.   Zhou and Kunieda disclose claim 38, "The image processing method as disclosed in

claim 25, and further comprising: an interpolation vector computation step of determining, from

interpolation vectors at said vertices, the interpolation vector to be used for determining a line

that interpolates the space between a given interpolated point and another interpolated point in

said interpolated points" supra for claim 25; wherein tangent vectors correspond to "interpolation

vectors at said vertices" and determining Bezier curve corresponds to "determining a line that

interpolates the space between a given interpolated point and another interpolated point in said

interpolated points".

H.   Per dependent claims 14 and 62, these are directed to a devise and medium, respectively,

for performing the method of dependent claim 38, and therefore are rejected to dependent claim

38.

I.   Zhou and Kunieda discloses claim 44, "The image processing method as described in

claim 25, wherein said interpolated line is a Bezier curve" supra for claim 25.

H.   Per dependent claims 20 and 68, these are directed to a devise and medium, respectively,

for performing the method of dependent claim 44, and therefore are rejected to dependent claim

44.

6.   Claims 22-24, 46-48 and 70-73 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Zhou et al., (US Patent Number 5,600,772), further in view of Kunieda, Takayuki et al. (JP

05175842 A), as applied to claims 1, 25 and 49 above, and further in view of Collins et al., (US-

PAT-NO: 5,781,714 A), hereinafter Collins.

A.   Zhou and Kunieda disclose claim 46, "The image processing method as described in

claim 25, wherein if the coordinates of the vertices of said unit graphic forms and the

interpolation vectors are recorded on a recording medium, the image processing method further

comprises a playback step of playing back from the recording medium the coordinates of said

vertices and the interpolation vectors" supra for claim 25. However Zhou and Kunieda do not

appear to disclose "wherein if the coordinates of the vertices of said unit graphic forms and the

interpolation vectors are recorded on a recording medium, the image processing method further

comprises a playback step of playing back from the recording medium the coordinates of said

vertices and the interpolation vectors", but Collins does in col. 4, lns. 18-28; wherein [the bitmap

patterns copied are determined largely by the shape of the font's original pre-defined font

descriptions] corresponds to "coordinates of the vertices of said unit graphic forms and the

interpolation vectors are recorded on a recording medium" and [able to play back any font

handled] corresponds to "a playback step of playing back from the recording medium".

B.   Per dependent claims 22 and 70, these are directed to a devise and medium, respectively,

for performing the method of dependent claim 46, and therefore are rejected to dependent claim

46.

C.   Zhou, Kunieda and Collins disclose claim 47, "The image processing method as

described in claim 25, wherein if the coordinates of the vertices of said unit graphic forms and

the interpolation vectors are transmitted via a transmission route, the image processing method

further comprises a reception step of receiving the coordinates of said vertices and the

interpolation vectors transmitted via the transmission route" supra for claim 46. Wherein

[recording device] corresponds to pathway of "transmission route".

D.   Per dependent claims 23 and 71, these are directed to a devise and medium, respectively,

for performing the method of dependent claim 47, and therefore are rejected to dependent claim

47.

E.   Zhou, Kunieda and Collins disclose claim 48, "The image processing method as

described in claim 25, wherein said image is a three-dimensional image, and said image

processing device includes an operation means which is operated when a prescribed input is

given, and the image processing method further comprising: a geometry processing step of

reading data concerning said unit graphic forms from a recording medium and performing with

respect to the data, geometry processing that corresponds to input from said operation means, a

conversion step of converting said sub-unit graphic forms obtained by splitting said unit graphic

forms resulting after said geometry processing into ones in the coordinate system of a two-

dimensional output device, and a rendering step of rendering said sub-unit graphic forms

converted by said conversion step" supra for claims 25 and 46. Wherein [play back any font

handled by the computer] corresponds to "recording and playback device".

F.   Per dependent claims 24 and 72, these are directed to a devise and medium, respectively,

for performing the method of dependent claim 48, and therefore are rejected to dependent claim

48.

G.   Zhou, Kunieda and Collins disclose claim 73, "The program distribution medium as

described in claim 49, which also provides the coordinates of the vertices of said unit graphic

forms and the interpolation vectors" supra for claim 49 and 70 (46); wherein [the bitmap patterns

copied are determined largely by the shape of the font's original pre-defined font descriptions]

corresponds to "also provides the coordinates of the vertices of said unit graphic forms and the

interpolation vectors".

Allowable Subject Matter

7.   Claims 2-7, 9, 10, 15-19 26-31, 33, 34, 39-43, 50-55, 57, 58 and 63-67 are objected to as

being dependent upon a rejected base claim, but would be allowable if rewritten in independent

form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8.   Applicant's arguments with respect to claims 1-7, 9-11, 13-20, 22-31, 33-35, 37-44, 46-

55, 57-59, 61-68, 70-73 have been considered but are moot in view of the new ground(s) of

rejection.

Responses

9.   Responses to this action should be mailed to: Commissioner of Patents and Trademarks,

Washington, D.C. 20231. If applicant desires to fax a response, (703) 308-9051 may be used for

formal communications or (703) 308-6606 for informal or draft communications.

Please label "PROPOSED" or "DRAFT" for informal facsimile communications. Hand-

delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA.,

Sixth Floor (Receptionist).

Inquiries

10.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Greg Cunningham whose telephone number is (703) 308-6109.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Matthew Bella, can be reached on (703) 308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Technology Center 2600 Customer Service Office whose telephone

number is (703) 306-0377.

J. F. Cunningham, Examiner

December 29, 2004

gfc

**MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**